

Notice of Allowability

Application No.

10/775,930

Examiner

A. Dexter Tugbang

Applicant(s)

SUGAWARA ET AL.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on April 26, 2007.
2. ☒ The allowed claim(s) is/are 7-12 (renumbered as 1-6, respectively).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/119,472.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date attached herein.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Election/Restriction

1. Upon further consideration by the examiner, the restriction requirement (mailed on August 10, 2006) has now been withdrawn. Claim 7 has been amended, as noted below, to overcome the prior art and all of the limitations of Claim 7 are now present in Claim 9. Therefore, Claims 9 through 11 have been rejoined with Claims 7, 8 and 12 and fully examined for patentability.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. David R. Metzger, on July 18, 2007.

The application has been amended as follows:

Claims 7, 8, 9 and 12 have been amended as follows.

7. (Currently amended) A method for manufacturing a magnetic head having a pair of magnetic core halves fitted together in abutting relationship with a [~~nonmagnetic~~] magnetic gap therebetween and having a slide contact plane for slide contact with a magnetic recording medium, said slide contact plane having a length extending in [~~the~~] a

general direction in which the magnetic gap extends and having end portions at opposite ends of said length of said slide contact plane, said method comprising steps of:

forming said magnetic core halves;

bonding said magnetic core halves together in an abutting relationship with the ~~[non-magnetic]~~ magnetic gap and track width regulating grooves provided at facing end faces of said magnetic core halves;

forming in the slide contact plane, a groove at each end portion of the opposite ends of the slide contact plane; and

forming a nonmagnetic portion by filling the grooves with a non-magnetic glass material so that the end portions at the opposite ends of the slide contact plane are comprised of the non-magnetic glass material.

In Claim 8, "Claim 8" (line 1) has been changed to -Claim 7--.

9. (Currently amended) A method of manufacturing magnetic heads, comprising:

forming a pair of magnetic core half blocks having track width regulating grooves formed over mating surfaces thereof;

depositing a metal magnetic thin film on the group of track width regulating grooves;

bonding the magnetic core half blocks in abutting relationship with said mating surfaces facing each other while having the metal magnetic thin film sandwiched therebetween at end faces of the abutting core half blocks, the thus bonded magnetic core

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half blocks forming a single block extending in a longitudinal direction and with a target surface~~[-said target surface being finished in a later step to be a slide contact plane for slide contact against a recording medium];~~

forming a pair of grooves along and in said target surface, each groove of the pair of grooves extending longitudinally along the single block and positioned between the thin metal magnetic film and an outer lateral edge of the single block;

filling the pair of grooves with a non-magnetic glass material; and

cutting individual magnetic heads from said single block to produce a magnetic head with a ~~[transducing]~~ magnetic gap between the end faces, a slide contact for slide contact against a recording medium that forms ~~[with]~~ a length extending generally in a ~~[the]~~ direction of said magnetic gap and between said end faces, said slide contact plane having end portions at opposite ends of said length of said slide contact plane and comprising said non-magnetic glass material.

In Claim 12, "further step" (line 1) has been changed to -further a step--.

Reasons for Allowance

3. The following is an examiner's statement of reasons for allowance.

The prior art does not teach all of the limitations of the claimed invention including:

bonding magnetic core halves together in abutting relationship with the magnetic gap and track width regulating grooves provided at facing end faces of the magnetic core halves; and

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forming in the slide contact plane, a groove at each end portion of the opposite ends of the slide contact plane (as recited in Claim 7);

or

depositing a metal magnetic thin film on the group of track width regulating grooves; bonding the magnetic core half blocks in abutting relationship with said mating surfaces facing each other while having the metal magnetic thin film sandwiched therebetween at end faces of the abutting core half blocks, the thus bonded magnetic core half blocks forming a single block extending in a longitudinal direction and with a target surface; and forming a pair of grooves along and in said target surface, each groove of the pair of grooves extending longitudinally along the single block and positioned between the thin metal magnetic film and an outer lateral edge of the single block (as recited in Claim 9).

In regards to the merits of Honda et al, Honda only teaches forming track width regulating grooves (e.g. 3) in the magnetic core halves as these grooves are filled with non-magnetic glass material. Therefore, Honda does not teach forming a groove in the slide contact plane at each end portion of the opposite ends of the slide contact plane.

Also, nowhere does Honda teach depositing of any metal magnetic thin film on the track width regulating grooves.

Furthermore, it would not be obvious to one of ordinary skill in the art to modify Honda by adding the features of grooves at opposite ends of the contact plane and a metal magnetic thin film in the track width regulating grooves, because to do so would destroy the overall structure of Honda. For example, Hondo nowhere suggest adding any additional grooves in the magnetic core halves, anywhere, so to add these grooves would destroy the invention of Honda.

Accordingly, Claims 7 through 12 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Dexter Tugbang whose telephone number is 571-272-4570. The examiner can normally be reached on Monday - Friday 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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**/A. Dexter Tugbang/
Primary Examiner
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July 20, 2007